

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
PES-0160

In Re Application Of: John Zaga, et al.

Serial No.  
10/604,670

Filing Date  
08/08/2003

Examiner

Group Art Unit  
1745

Title: **ELECTROCHEMICAL CELL SUPPORT STRUCTURE**

Address to:  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**37 CFR 1.97(b)**

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

**37 CFR 1.97(c)**

2. ☐ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:
- ☐ the statement specified in 37 CFR 1.97(e);
- OR**
- ☐ the fee set forth in 37 CFR 1.17(p).

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
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**ELECTROCHEMICAL CELL SUPPORT STRUCTURE**

**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☐ A check in the amount of \_\_\_\_\_ is attached.
- ☒ The Assistant Commissioner is hereby authorized to charge and credit Deposit Account No. 06-1130 as described below. A duplicate copy of this sheet is enclosed.
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- ☐ Credit any overpayment.
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I certify that this document and fee is being deposited November 17, 2003 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

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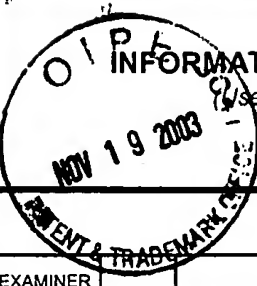
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Signature

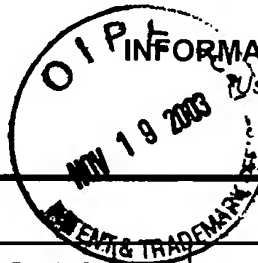
Dated: November 17, 2003

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 <p><b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)</p>				ATTY DOCKET NO. <b>PES-0160</b>		SERIAL NO. <b>10/604,670</b>	
				John Zagaja, et al.			
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<b>U.S. PATENT DOCUMENTS</b>							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1	3,379,634	04/23/1968	Rutkowski, M.D.	204	258	05/24/1965
	2	3,992,271	11/16/1976	Danzig et al.	204	129	03/03/1975
	3	4,039,409	08/02/1977	LaConti et al.	204	129	12/04/1975
	4	4,040,936	08/09/1977	Orth et al.	204	271	08/02/1976
	5	4,048,383	09/13/1977	Clifford	429	19	02/09/1976
	6	4,136,004	01/23/1979	Kamarian et al.	204	256	07/09/1976
	7	4,146,438	03/27/1979	de Nora et al.	204	1.5	03/07/1977
	8	4,191,618	03/04/1980	Coker et al.	204	98	07/06/1978
	9	4,209,368	06/24/1980	Coker et al	204	98	08/07/1978
	10	4,209,591	06/24/1980	Hendriks	435	288	08/03/1978
	11	4,210,501	07/01/1980	Dempsey et al.	204	129	07/06/1978
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	11	04 406 831 A1	09.01.91	Europe			<input type="checkbox"/> <input checked="" type="checkbox"/>
	12	0 472 922 A2	04.03.92	Europe			<input type="checkbox"/> <input checked="" type="checkbox"/>
	13	EP 0 791 974 A1	27.08.1997	Europe			<input type="checkbox"/> <input checked="" type="checkbox"/>
	14	WO 99/39840	12.08.1999	International			<input type="checkbox"/> <input checked="" type="checkbox"/>
	15	WO 99/39841	12.08.1999	International			<input type="checkbox"/> <input checked="" type="checkbox"/>
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	16	SPE Hydrogen/Oxygen Fuel Cells for Rigorous Naval Applications, J.F. McElroy et al., United Technologies, Windsor Locks, Connecticut (5 pages)					
	17	American Society of Mechanical Engineers, "Design and Test Status for Life Support Applications of SPE Oxygen Generation Systems", W.A. Tirrington and A.C. Erickson, 8 pages					
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	18	4,212,714	07/15/1980	Coker et al.	204	98	05/14/1979
	19	4,214,958	07/29/1980	Coker et al.	204	98	05/14/1979
	20	4,224,121	09/23/1980	Dempsey et al.	204	98	07/06/1978
	21	4,272,352	06/09/1981	Jizaimaru et al.	204	279	06/06/1979
	22	4,276,146	06/30/1981	Coker et al.	204	266	12/07/1979
	23	4,294,671	10/13/1981	Balko	204	128	05/14/1980
	24	4,311,568	01/19/1982	Balko	204	128	04/02/1980
	25	4,311,569	01/19/1982	Dempsey et al.	204	129	04/21/1980
	26	4,331,523	05/25/1982	Kawasaki	204	129	03/26/1981
	27	4,333,805	06/08/805	Davidson et al.	204	98	04/27/1981
	28	4,360,416	11/23/1982	Davidson et al.	204	266	04/27/1981
<b>FOREIGN PATENT DOCUMENTS</b>							
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	29	WO 01/37359 A2	25.05.2001	International	H01M	4/00	<input type="checkbox"/> <input checked="" type="checkbox"/>
	30	1,145,250	12.07.1967	Germany	H 01 m	27/00	<input type="checkbox"/> <input checked="" type="checkbox"/>
	31	DE197 57 320 A 1	1.7.99	International	H01M	4/92	<input type="checkbox"/> <input checked="" type="checkbox"/>
<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
	32	"An Electrochemically Regenerative Hydrogen-Chlorine Energy Storage System for Electric Utilities", E. Gileadi et al., Journal of Power Sources, 2 (1977/78) 191-200 (April 27, 1977)					
	33	ASME Publication, "Aircraft On-Board Electrochemical Breathing Oxygen Generators", J.W. Harrison, 8 pages, Abstracts of Papers, 166th National Meeting, American Chemical Society Division of Fuel Chemistry, August 27-31, 1973					
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	34	4,373,391	02/15/1983	Johnson	73	335	04/24/1981
	35	4,389,297	06/21/1983	Korach	204	252	05/13/1981
	36	4,394,244	07/19/1983	Divisek et al.	204	295	07/07/1980
	37	4,406,752	09/27/1983	Weininger et al.	204	3	11/29/1982
	38	4,414,092	11/08/1983	Lu et al.	204	294	04/15/1982
	39	4,444,639	04/24/1984	Schurig et al.	204	257	07/27/1982
	40	4,457,824	07/03/1984	Dempsey et al.	204	290 F	06/28/1982
	41	4,588,661	05/13/1986	Kaufman et al.	429	36	08/27/1984
	42	4,652,502	03/24/1987	Breault et al.	429	13	12/30/1985
	43	4,707,229	11/17/1987	Dempsey et al.	204	129	12/22/1983
	44	4,715,938	12/29/1987	Billings	204	129	11/04/1986

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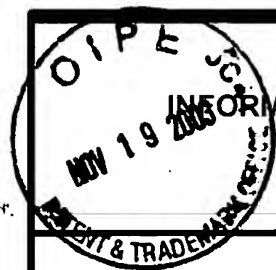
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		45	1982 17th Intersociety Energy Conversion Engineering Conference, "Status of Solid Polymer Electrolyte Fuel Cell Technology and Potential for Transportation Applications" J.F. McElroy et al. (6 pages) August 8-12, 1982
		46	Frontiers of Power Technology Conference, October 9-10, 1974, "Prospects for Electrolytic Hydrogen for Chemical/Industrial Plants", Leonard J. Nuttall (23 pages)

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	47	4,950,371	08/21/1990	McElroy	204	129	03/24/1989
	48	5,296,109	03/22/1994	Carlson et al.	204	129	06/02/1992
	49	5,346,778	09/13/1994	Ewan et al.	429	19	08/13/1992
	50	5,372,689	12/13/1994	Carlson et al.	204	252	03/18/1994
	51	5,470,448	11/28/1995	Molter et al.	204	252	01/28/1994
	52	5,690,797	11/25/1997	Harada et al.	204	229	01/18/1996
	53	5,837,110	11/17/1998	Dean	204	240	12/17/1996

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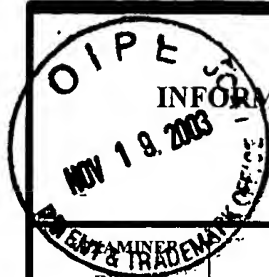
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		54	"Feasibility Study of Regenerative Solid Polymer Electrolyte Fuel Cell System Using Hydrogen/Chlorine Reactants for High Efficiency Energy Storage", L.J. Nuttall et al., (19 pages) 1977
		55	Proceedings of the 28th Power Sources Symposium, 12-15 June 1978, "An Assessment of the Solid Polymer Electrolyte Fuel Cell for Mobile Power Plants", J.F. McElroy (5 pages)

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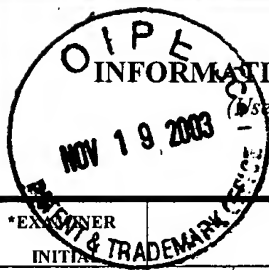
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56	7th Intersociety Energy Conversion Engineering Conference, 1972, "The Solid Polymer Electrolyte Fuel Cell for the Space Shuttle Orbiter", Lloyd E. Chapman, (7 pages)
57	Abstracts of Papers, First Chemical Congress of the North American Continent, Mexico City, Mexico, November 30 - December 5, 1975, No. 21, "Some Physico-Chemical Properties of Select Hydrated Sulfonic Acid Membranes used in Separation and Electrochemical Devices", (3 pages)
58	Operations and Maintenance Manual for the SIFR - SPE Oxygen Generator Assembly (OGA), March 25, 1993, D.W. Rethke 9 Apr 1993
59	8th Intersociety Energy Conversion Engineering Conference Proceedings, University of Pennsylvania, Philadelphia, PA, August 13-17, 1973, "Electrolytic Hydrogen Fuel Production with Solid Polymer Electrolyte Technology", W.A. Titterington et al., (7 pages)
60	Journal of the Electrochemical Society, Vol. 118 No. 3, March, 1971, "Electrochemical Detection of H <sub>2</sub> , CO, and Hydrocarbons in Inert or Oxygen Atmospheres", A.B. LaConti et al., (2 pages)
61	Hydrogen Energy System, Proceedings of the 2nd World Hydrogen Energy Conference, held in Zurich, Switzerland, 21-24 August 1978, "Solid Polymer Electrolyte Water Electrolysis Development Status", L.J. Nuttall et al., (9 pages)
62	General Electric Company, Report No. 71-C-303, October, 1971, "The Current Status of Ion Exchange Membrane Fuel Cells", L.W. Niedrach et al.
63	"A Low Pressure Electrolyzer for the Next Generation Submarine", Andrei Leonida et al., 22nd International Conference on Environmental Systems, Seattle, Washington, July 13-16, 1992 (7 pages)
64	Proceedings of the 33rd International Power Sources Symposium, 13-16 June 1988, "Hydrogen/Oxygen Fuel Cells with In-Situ Product Water Removal", Andrei Leonida, United Technologies Corp., (8 pages)
65	Proceedings of Eighth Synthetic Pipeline Gas Symposium, Ramanda O'Hare Inn, Chicago, Illinois, October 18-20, 1976, "Application of Solid Polymer Electrolyte Water Electrolysis for Bulk Hydrogen Generation, L.J. Nuttall, (13 pages)
66	Conference Proceedings Volume II, 1st World Hydrogen Energy Conference, 1-3 March 1976, Miami Beach, Florida, "Conceptual Design of Large Scale Water Electrolysis Plant using the Solid Polymer Electrolyte Technology, L.J. Nuttall, (2 pages)
67	Journal of the Electrochemical Society, Vol 125, No. 3, March, 1978, Abstract No. 485, "New Developments in Alkaline Electrolysis Technology", A.J. Appleby et al, (5 pages)

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Industrial and Government Applications of SPE Fuel Cell and Electrolyzers, T.G. Coket et al., The Case Western Symposium on "Membranes and Ionic and Electronic Conducting Polymer" May 17-19, 1982, Cleveland, Ohio, (23 pages)

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"Solid Polymer Electrolyte Water Electrolysis Technology Development for Large-Scale Hydrogen Production". Final Report, October 1977 - November 1981, General Electric Company, Wilmington, Massachusetts

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Prepared for the Presentation at the National Meeting of the American Institute of Chemical Engineers, Symposium on "Some Recent Advances in the Chemical Engineering Aspects of Energy Conversion", June 3-6, 1973, Detroit, Michigan, "Prehumidification of Reactants for flight Weight Hydrogen-Oxygen Fuel Cells", A.P. Fickett et al., (28 pages)

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Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, Cleveland Convention Center, Cleveland, Ohio, March 4-8, 1974, "A Solid Polymer Electrolyte Hydrogen Gas Generator for Gas Chromatography", R.C. Jones, (3 pages)

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NASA Center for Aerospace Information (CASI), Global Connection to Aerospace Research, "Status and Applicability of Solid Polymer Electrolyte Technology to Electrolytic Hydrogen and Oxygen Production, W.A. Titterington, (3 pages)

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SPE Water Electrolysis Subsystem, Configuration and Operations Manual, Prepared by Hamilton Standard Division, Electro-Chem Products, July, 1991

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International Search Report; International Application No. PCT/US 00/4223; International Filing Date 17/11/200 (7 pgs); Date of Mailing 29/04/2002

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